

Atty. Docket No. YOR920030199US1  
(590.110)

**Amendments to the Claims:**

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This listing of claims will replace all prior versions, and listings, of claims in the application. Amendments to the claims find full support in the claims and/or specification as filed.

**Listing of Claims:**

1. (Currently Amended) A system for classifying objects using a computer, the system comprising:

an arrangement for receiving input data corresponding to identified properties of objects to be classified;

an arrangement for formulating a query to identify objects having properties of interest, wherein the arrangement for formulating a query takes into account:

properties that best define the query, wherein the properties that best define the query constitute a signature characteristic of an object collection that is known to belong to a particular class of interest, and further wherein the properties constituting a signature characteristic are determined utilizing an expression that best defines the object collection; and

a desired form of output, wherein the query is manipulated to produce different forms of output based on the desired form of output;

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an arrangement for selecting properties of the objects to compare with object properties included in the query; and

an arrangement for determining if ~~based on the selected properties if~~ an object belongs in the query based on the selected properties; and

an arrangement for obtaining a result yielded by the arrangement for determining if the object belongs in the query;

wherein the system utilizes a processor to perform the classification

~~wherein the formulation of the query takes into account the desired form of output and the properties an object returned should possess.~~

2. (Currently Amended) The system of Claim 1, wherein the selection of properties of objects to compare with object properties included in the query is made ~~determined~~ in conjunction with a determination of ~~the~~ a boolean expression of the properties.

3. (Original) The system of Claim 2, wherein the boolean expression is an optimized expression of the expression that best defines the query.

4. (Previously Presented) The system of Claim 3, wherein the optimization of the boolean expression is accomplished by minimizing the error of the expression which defines the query.

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5. (Currently Amended) A computer implemented method for classifying objects ~~using a computer~~, the method comprising the steps of:

executing computer instructions to ~~identifying~~ identify properties of objects;

executing computer instructions to input data corresponding to identified properties of objects to be classified;

executing computer instructions to ~~formulating~~ formulate a query to identify objects having properties of interest, wherein the query takes into account:

properties that best define the query, wherein the properties that best define the query constitute a signature characteristic of an object collection that is known to belong to a particular class of interest, and further wherein the properties constituting a signature characteristic are determined utilizing an expression that best defines the object collection; and

a desired form of output, wherein the query is manipulated to produce different forms of output based on the desired form of output;

executing computer instructions to selecting ~~select~~ properties of the objects to compare with object properties included in the query; and

executing computer instructions to ~~determining~~ determine if based on the selected properties if the object belongs in the query-based on the selected properties; and

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executing computer instructions to obtain a result yielded by the arrangement for  
determining if the object belongs in the query

~~wherein the formulation of the query takes into account the desired form of output  
and the properties an object returned should possess.~~

6. **(Currently Amended)** The method of Claim 5, wherein the selection of properties of objects to compare with object properties included in the query is made ~~determined~~ in conjunction with a determination of the a boolean expression of the properties.

7. **(Original)** The method of Claim 6, wherein the boolean expression is an optimized expression of the expression that best defines the query.

8. **(Previously Presented)** The method of Claim 7, wherein the optimization of the boolean expression is accomplished by minimizing the error of the expression which defines the query.

9. **(Currently Amended)** A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform computer implemented method steps for classifying objects using a computer, said method comprising the steps of:

executing computer instructions to ~~identifying~~ identify properties of objects;

executing computer instructions to input data corresponding to identified  
properties of objects to be classified;

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executing computer instructions to formulate a query to identify objects having properties of interest, wherein the query takes into account:

properties that best define the query, wherein the properties that best define the query constitute a signature characteristic of an object collection that is known to belong to a particular class of interest, and further wherein the properties constituting a signature characteristic are determined utilizing an expression that best defines the object collection; and

a desired form of output, wherein the query is manipulated to produce different forms of output based on the desired form of output;

executing computer instructions to selecting select properties of the objects to compare with object properties included in the query; and

executing computer instructions to determining determine if based on the selected properties if the object belongs in the query-based on the selected properties; and

executing computer instructions to obtain a result yielded by the arrangement for determining if the object belongs in the query

wherein the formulation of the query takes into account the desired form of output and the properties an object returned should possess.